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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/844,660 | 04/27/2001 | Tadaaki Hamaguchi | 11197/6 | 9001 |

7590 12/05/2002

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EXAMINER

PIERCE, JEREMY R

ART UNIT PAPER NUMBER

1771

DATE MAILED: 12/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,660

Applicant(s)

HAMAGUCHI ET AL.

Examiner

Jeremy R. Pierce

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-- Th MAILING DATE of this communication app ars on the cov r sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 7-14 and 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-6, 15, and 16 in Paper No. 9 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-6, 15, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite the polyester fibers are made hydrophilic by heating them to a temperature of 35°C. It is unclear as to whether the fibers remain hydrophilic only at a temperature above 35°C or if they permanently become hydrophilic after the heating no matter what temperature they are. Do the fibers only remain hydrophilic at a temperature above 35°C?

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wada et al. (U.S. Patent No. 4,027,346).

Wada et al. disclose making polyester fibers hydrophilic by dipping them into an aqueous dispersion comprising a polyester polyether block copolymer and heating it to just above its aggregation temperature (column 1, line 61 –column 2, line 40). With regard to claims 2 and 16, the polyester polyether block copolymers comprise terephthalic acid, isophthalic acid, or esters of those acids; and polyalkylene glycol (column 4, lines 47-56) with molecular weights in the range of 2,000-20,000 (column 5, lines 20-23). With regard to claim 3, the block copolymer is applied to the fiber in an amount of 0.02-5.0% by weight of the fiber (column 5, lines 39-40). With regard to claim 4, Wada et al. disclose anionic and nonionic surface-active agents (column 5, lines 44-68). Wada et al. also teach using ammonium salts (column 7, lines 5-9), which is a cationic surfactant. With regard to claim 5, Wada et al. disclose the polyester fiber to be polyethylene terephthalate (column 4, lines 25-26).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al. in view of Suzuki et al. (U.S. Patent No. 5,262,460).

Wada et al. do not disclose treating a bicomponent polyester fiber. Suzuki et al. teach applying hydrophilic imparting polyester polyether block copolymer to sheath core bicomponent polyester fiber (column 23, lines 42-68). It would have been obvious to one having ordinary skill in the art to use the hydrophilic imparting method disclosed by Wada et al. to a sheath core bicomponent polyester fiber in order to create a bicomponent fiber useful in applications that a single component fiber would not be with the hydrophilic, dust proofing, stain removing, anti-soil re-deposition and anti-static properties taught by Wada et al.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 3,416,952 to McIntyre et al. and U.S. Patent No. 5,942,176 to Fujii et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

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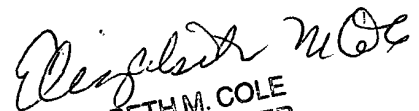
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeremy R. Pierce
Examiner
Art Unit 1771

November 27, 2002



ELIZABETH M. COLE
PRIMARY EXAMINER